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ENVIRONMENTAL PROTECTION
AGENCY REGION VII
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UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION VII

IN THE MATTER OF:
FCI CHEMTECH-ST. LOUIS SITE
ST. LOUIS COUNTY, MISSOURI

BRENNTAG MID-SOUTH, Inc.
Respondent

Proceeding Under Sections
104, 106(a), 107 and 122 of the
Comprehensive Environmental Response,
Compensation, and Liability Act, as
amended, 42 U.S.C. §§ 9604, 9606(a),
9607 and 9622

U.S. EPA Region VII
CERCLA EPA ID NO MOD000830414
Docket No. CERCLA-07-2004-0155

ADMINISTRATIVE ORDER ON CONSENT FOR ENGINEERING
EVALUATION/COST ANALYSIS

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I. JURISDICTION AND GENERAL PROVISIONS

- 1) This Administrative Order on Consent (Order) is entered into by the EPA and Brenntag Mid-South, Inc. (hereinafter known as Respondent or Brenntag). This Order requires the Respondent to perform an Engineering Evaluation/Cost Analysis (EE/CA), consistent with the NCP, 40 C.F.R. Part 300, and the "Guidance on Conducting Non-Time Critical Removal Actions under CERCLA," EPA/540-R-93-057, August, 1993. The purpose of the EE/CA is to identify and evaluate alternatives for removal action to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants or contaminants at the HCI Chemtech - St. Louis Site. The scope and substance of the EE/CA to be performed by Respondent is set forth in Section VII of this Order and in the Statement of Work (SOW), incorporated herein as Attachment I to this Consent Order.
- 2) This Order is issued pursuant to the authority vested in the President of the United States by sections 104, 106(a), 107 and 122 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9604, 9606(a), 9607 and 9622, as amended (CERCLA), and delegated to the Administrator of the United States Environmental Protection Agency (EPA) by Executive Order No. 12580, January 23, 1987, 52 Federal Register 2923, and further delegated to the EPA Regional Administrators by EPA Delegation No. 14-14-C. This authority has been redelegated by the Regional Administrator to the Superfund Division Director by regional delegation R7-14-14C.
- 3) EPA has notified the State of Missouri of this action pursuant to section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
- 4) Respondent's participation in this Order shall not constitute or be construed as an admission of liability or of EPA's findings or determinations contained in this Order except in a proceeding to enforce the terms of this Order. Respondent agrees to comply with and be bound by the terms of this Order. Respondent further agrees that it will not contest the basis or validity of this Order or its terms.

II. PARTIES BOUND

- 5) This Order applies to and is binding upon EPA and upon Respondent and Respondent's successors and assigns. Any change in ownership or corporate status of Respondent including, but not limited to, any transfer of assets or real or personal property shall not alter Respondent's responsibilities under this Order.
- 6) Respondent shall ensure that its contractors, subcontractors, and representatives receive a copy of this Order and comply with this Order. Respondent shall be responsible for any noncompliance with this Order.

III. DEFINITIONS

- 7) Unless otherwise expressly provided herein, terms used in this Order which are defined in CERCLA or in regulations promulgated under CERCLA shall have the meaning assigned to them in CERCLA or in such regulations. Whenever terms listed below are used in this Order or in the appendices attached hereto and incorporated hereunder, the following definitions shall apply:
- A. "Brenntag Property" shall mean the property that is a portion of the HCI Chemtech -St. Louis Site that is currently owned and operated by Brenntag Mid-South, Inc.
 - B. "CERCLA" shall mean the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended, 42 U.S.C. §§ 9601 et seq.
 - C. "Day" shall mean a calendar day unless expressly stated to be a working day. "Working day" shall mean a day other than a Saturday, Sunday, or Federal holiday. In computing any period of time under this Order, where the last day would fall on a Saturday, Sunday, or Federal holiday, the period shall run until the close of business of the next working day.
 - D. "Effective Date" shall mean the date this Order is effective pursuant to Section XXIV of this Order.
 - E. "EPA" shall mean the United States Environmental Protection Agency and any successor departments or agencies of the United States.
 - F. "Engineering Evaluation/Cost Analysis" (EE/CA) shall mean the study or investigation which identifies the objectives of a Non-Time Critical response action and includes an analysis of cost, effectiveness, and implementability of the various alternatives that may be used to satisfy these objectives.
 - G. "Future Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the EPA incurs on or after the Effective Date of this Order in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order, including, but not limited to, payroll costs, contractor costs, travel costs, laboratory costs, the costs incurred pursuant to this Site (including, but not limited to, attorneys fees and any monies paid to secure access and/or to secure institutional controls, including the amount of just compensation).
 - H. "Interest" shall mean interest at the rate specified for interest on investments of the Hazardous Substance Superfund established under Subchapter A of Chapter 98 of Title 26 of the U.S. Code, compounded on October 1 of each year, in accordance with 42 U.S.C. § 9607(a).

- I. "Matters Addressed" shall mean all Work performed and all payments made pursuant to this Order.
- J. "MDNR" shall mean the Missouri Department of Natural Resources and any successor departments or agencies of the State.
- K. "National Contingency Plan" or "NCP" shall mean the National Oil and Hazardous Substances Pollution Contingency Plan promulgated pursuant to Section 105 of CERCLA, 42 U.S.C. § 9605, codified at 40 C.F.R. Part 300, and any amendments thereto.
- L. "Order" shall mean this Order and all appendices attached hereto. In the event of conflict between this Order and any appendix, this Order shall control.
- M. "Paragraph" shall mean a portion of this Order identified by an arabic numeral or an upper or lower case letter.
- N. "Parties" shall mean the United States and the Respondent.
- O. "Past Response Costs" shall mean all costs, including, but not limited to, direct and indirect costs, that the EPA paid at or in connection with the Site prior to the Effective Date of this Order, plus Interest on all such costs which has accrued pursuant to 42 U.S.C. § 9607(a) through such date.
- P. "Performance Standards" shall mean the cleanup standards and other measures of achievement of the goals of this Order as set forth in this Order and any modified standards established by EPA.
- Q. "Respondent" shall mean Brenntag Mid-South, Inc., and any successors or assigns.
- R. "Section" shall mean a portion of this Order identified by a roman numeral.
- S. "Site" shall mean the HCI Chemtech St. Louis Site, encompassing approximately 14.89 acres, located at 139 East Soper Street in St. Louis, Missouri and depicted generally on the attached map referred to as Attachment II. The Site also encompasses all areas where pollutants, contaminants, and/or hazardous substances released from the Site have come to be located.
- T. "State" shall mean the State of Missouri.
- U. "United States" shall mean the United States of America, and any and all agencies and instrumentalities thereof.

- V. "Work" shall mean all activities Respondent is required to perform under this Order, except those required by Section VII (Retention of Records).

IV. STATEMENT OF PURPOSE

- 8) In entering into this Administrative Order on Consent, the objectives of EPA and the Respondent are to conduct an EE/CA. The purpose of the EE/CA is to identify and evaluate alternatives for removal action to prevent, mitigate, or otherwise respond to or remedy the release or threatened release of hazardous substances, pollutants or contaminants at the HCI Chemtech - St. Louis Site.

V. FINDINGS OF FACT

Site Description

- 9) The HCI Chemtech-St. Louis Site, EPA ID # MOD000830414, is located at 139 East Soper Street, St. Louis, Missouri, 63111. Brenntag AG acquired Holland Chemical International- Chemtech (HCI Chemtech) in December of 2000 and currently operates the facility under their subsidiary Brenntag Mid-South, Inc. Holland Chemical International acquired the facility from Chemtech Industries, Inc., in 1992 and operated under the name HCI-Chemtech Distribution, Inc. Chemtech Industries, Inc. initiated operations at the facility in 1979.
- 10) Initially, the Site covered 6.2 acres and included 83 above ground storage tanks, with a total capacity of approximately 7,900,000 gallons. In 1995, HCI-Chemtech acquired the adjacent property to the south of their facility from St. Louis Steel Castings, Inc. (Steel Castings). The area of the acquired property was 8.69 acres. All buildings on the Steel Castings property were removed prior to the purchase by HCI-Chemtech. Subsequent to purchasing the Steel Castings property, two new tank farms, with improved secondary containment, were constructed and several tanks were relocated to these tank farms from some of the original tank farms.
- 11) Presently, the Site encompasses approximately 14.89 acres in an industrial area on the west bank of the Mississippi River. Broadway Avenue, which runs parallel to the Mississippi River approximately 200 feet west of the facility, separates the industrial area from residential areas located approximately 1,000 feet to the west of the Site. See Attachment II, Site Map.
- 12) The Brenntag Property is surrounded with a six-foot chain link fence with a locked entry gate along the front, which adjoins the Facility's office building. The Brenntag Property also contains a rail spur, which enters the Site from the south along the western boundary of the Site.
- 13) The Site includes a 4,700 square foot office, a 32,900 square foot warehouse, and a 5,700 square foot maintenance shop. The warehouse includes space for the storage of drums, a

maintenance area, a solvent drum filling area, an acid drum filling room, an acid and caustic drum rinsing room, a "white room" for handling pharmaceutical and food grade chemicals, and an 8,500 gallon blend tank in the solvent drum filling room. A small laboratory building is located across Broadway Avenue approximately 500 feet west of the facility.

- 14) The Site is adjoined by vacant lots on the west and a metal recycler, Southern Metal Processing, on the northwest. The Missouri Pacific Railroad tracks are located between the Site and these properties. The United States Coast Guard (USCG) Old Base is located immediately north of the Brenntag Property. The USCG Old Base is an inactive facility that comprises an area of approximately 4.43 acres. Located east of the Site are the Mississippi River and the facility barge dock. Lone Star Cement Company operates a cement mixing and distribution facility south of the Site. In addition, Rhone-Poulenc Agricultural Company, an agricultural chemical mixing and storage facility, is located south of the Site. See, Attachment II.
- 15) The Brenntag facility has 36 employees, of which four are warehouse and forklift operators. Exposure to impacted soil may be a concern for contractors involved in excavation.
- 16) The types of products previously or currently handled at the Site have included caustics, aromatic solvents, acids, ketones, alcohols, glycols, and chlorinated solvents. Dry chemicals include dry caustic, surfactants, desiccants, and pharmaceutical and food-grade chemicals.
- 17) The Brenntag Mid-South, Inc., St. Louis, facility receives bulk liquid chemicals in barges, rail cars, and trucks. These chemicals are transferred to bulk storage tanks. Dry chemicals and packaged liquid chemicals are received by truck. From the bulk storage tanks, chemicals are delivered in bulk or are transferred to 55-gallon, 15-gallon, and 5-gallon drums, or portable tanks for shipment to customers. Each storage tank is individually plumbed to the truck loading areas and the solvent filling areas to minimize the need for line flushing.
- 18) Some chemicals are blended prior to delivery in bulk or prior to being transferred to drums. Blending operations are conducted in 3 tanks (4,000, 1,500, and 750 gallon tanks) located in the solvent drumming area. An 1,100-gallon blending tank for food grade chemicals is located by the white room in the main warehouse. There is a 5,000-gallon caustic soda blending tank located on the outside storage pad by the acid area. All chemical transfer operations take place in areas with spill containment, including concrete catch basins. Drip pans are used to catch minor amounts of solvents during hose disconnection. All hoses are blown with compressed air to help ensure that no chemicals are left in the hose that could spill when the hose is disconnected from the pump. All drums are sent off-site for reclaiming or recycling, except for a minor number of 15-gallon acid or caustic drums that are rinsed at the Site.

- 19) A 500-gallon used oil underground storage tank and approximately 20 feet of piping were removed in 2002. The former used oil tank basin is located in front of the maintenance shop near the east property boundary.
- 20) According to the U.S. Geological Survey (USGS) Cahokia, Illinois-Missouri 7.5-minute quadrangle map (1998), the ground-surface elevation of the Site is approximately 410 feet (ft) above the National Geodetic Vertical Datum (NGVD) of 1929. The USGS map indicates that the surface consists of a gently east-sloping terrace on the west bank of the Mississippi River. The ground surface at the Site slopes gently east toward the west bank of the Mississippi River. There are no notable drainage channels on the Site, although easterly flowing drainage channels are present both north and south of the Site. The River Des Peres Drainage Channel is located approximately 1.2 miles downstream of the Site.
- 21) Groundwater elevations beneath the Site are influenced by the Mississippi River. The normal seasonal river elevation fluctuates between 385 ft and 410 ft above mean sea level. Groundwater flow during normal and low Mississippi River stage is toward the Mississippi River.
- 22) There are no known beneficial uses of the groundwater near the Site and there are no known water supply wells in the vicinity of the Site. Groundwater data are derived from groundwater elevation measured during quarterly monitoring events.
- 23) The Site is underlain by a heterogeneous fill, sand and silt layers which appear to be composed of natural sediments mixed with slag, a silty clay, and limestone bedrock. The fill consists of sandy silt to silty sand with some gravel rich layers. A distinct material described as slag, occurs in varying amounts in the fill. The amount of slag appears to increase to the north, toward the USCG Old Base property, and to the east towards the river, particularly on the USCG Old Base property. The source of the slag is unknown. A reasonable speculation is that the slag was imported as fill from the operations at the St. Louis Steel Castings facility that is adjacent to the Brenntag/HCI Chemtech facility to the south.
- 24) Units of sand and silt have been identified in the boring logs without slag. The sand and silt lack continuity within the fill material. Neither these units nor the associated fill have distinct layers described in the boring logs; however, it is probable that some indistinct layering exists based on the variability of the fill described in the logs.
- 25) A native silty clay unit comprised of river sediments underlies the heterogeneous fill material. The features that distinguish this unit from the overlying fill material are: the black to dark gray color, the amount of organic material, and the presence of distinct layers.
- 26) The limestone bedrock consists of one to two feet of weathered limestone overlying competent bedrock. The drill augers and drive samplers were unable to penetrate the

limestone bedrock. This layer likely inhibits the downward movement of groundwater in this area.

Previous Investigations and Findings

- 27) The initial subsurface investigation conducted at the facility commenced in 1992 by C. Johnson Environmental (CJE) as a pre-acquisition assessment for Holland Chemical International. The investigation included the installation of two groundwater monitoring wells (MW-1 and MW-2) and one soil boring. Sampling results indicated the presence of aromatic and chlorinated solvents in the soil and in the groundwater.
- 28) Also in 1992, the USCG conducted a subsurface investigation on the Old Base property located north and adjacent to the Brenntag Property. Nine monitoring wells and eight boreholes were installed on the USCG Old Base property. Results of the analyses from samples taken from the monitoring wells identified VOCs exceeding Federal Maximum Contaminant Levels (MCLs). Results of the analysis identified the following Contaminants of Concern (COCs):
- acetone at 20,500 parts per billion (ppb)
 - benzene at 500 ppb, MCL 5 ppb
 - 2-butanone at 2,600 ppb
 - chlorobenzene at 802 ppb, MCL 100 ppb
 - chloromethane at 178 ppb, Health Advisory Level (HAL) of 3 ppb
 - 1,2-dichlorobenzene at 235 ppb, MCL 600 ppb
 - 1,1-dichloroethene at 13,200 ppb, MCL 7 ppb
 - ethylbenzene at 1,200 ppb, MCL 700 ppb
 - toluene at 5,200 ppb, MCL 1,000 ppb
 - trichloroethene at 974 ppb, MCL 5 ppb
 - vinyl chloride at 1,100 ppb, MCL 2 ppb
 - xylenes at 5,300 ppb, MCL for xylene (total) 10,000 ppb.
- 29) In 1994, CJE installed three additional monitoring wells (MW-3, MW-4, MW-5) at the Brenntag Property as a result of an MDNR request. Results from these monitoring wells identified the presence of VOCs and SVOCs, at concentrations above the Missouri Water Quality Standards and/or Federal MCLs.
- 30) Eight additional monitoring wells (MW-6 through MW-13) were installed at the Brenntag Property in November 1999. The wells were installed to better evaluate the impact that releases of hazardous substances had on the groundwater at the Brenntag Property. Analytical analyses indicated the presence of volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs) at concentrations above maximum contaminant levels.

- 31) Groundwater sampling has been conducted on a quarterly basis since April 2000. Analytical results of groundwater collected during these events demonstrate that the following COCs, among others, continue at levels above the applicable MCL:
- vinyl chloride 15,000 ppb (MCL 2 ppb);
 - chlorobenzene 340 ppb (MCL 100 ppb);
 - cis-1,2-dichloroethene 18,000 ppb (MCL 70 ppb);
 - 1,1-dichloroethene 140 ppb (MCL 7 ppb);
 - and trans-1-2-dichloroethene 510 ppb (MCL 100 ppb).
- 32) The analytical results of the quarterly sampling events and the samples collected at the USCG Old Base and the Brenntag Property demonstrate that groundwater with elevated pH and VOC contamination has migrated from the Brenntag facility.
- 33) In July and August 2003, a number of investigations were conducted at the USCG Old Base. These activities included the installation of four additional monitoring wells, the performance of a groundwater pump test to determine the flow characteristics of the groundwater, the collection of groundwater samples for use in treatability studies, the performance of slug tests, and a groundwater elevation survey. A point was surveyed on the USCG dock to aid in the measurement of Mississippi River stage. Results of these activities confirmed, among other things, that groundwater with elevated pH and containing VOC concentrations exceeding MCLs has migrated from the Brenntag facility, under the USCG Old Base, and discharges along the banks of the Mississippi River. Trichlorethene (1,300 ug/l), cis-1-2-Dichlorethene (1,900 ppb) and 1,1-Dichloroethene (440 ppb) are among the contaminants identified discharging from the banks of the Mississippi River. The MCLs for these contaminants are 5 ppb, 70ppb, and 7 ppb, respectively.
- 34) Due to improper handling prior to Respondent's ownership of the Brenntag Property, small releases of organic solvents have historically occurred during loading and unloading operations at the Site. These releases have resulted in the release of VOCs to the soil and groundwater at the Site. There is also evidence of a release of toluene and xylene at the Site. Sample analyses have identified xylene and toluene in several wells downgradient of where the substances were stored. Xylene and toluene have been identified at concentrations up to 16,000 ppb and 120,000 ppb. The MCLs for these substances are 10,000 and 1,000 ppb, respectively.
- 35) VOCs detected in groundwater samples indicate elevated concentrations of chlorinated solvents and aromatic solvents in Wells MW-1 and MW-2. The chlorinated and aromatic solvents in groundwater originating from the north-central portion of the Site have commingled.
- 36) In 1996 a leak in the bottom of a caustic soda storage tank (tank 28) released 23,000 gallons of caustic soda to the soil and groundwater beneath the tank.

- 37) The presence of acetone at concentrations exceeding 20,500 ppb in Well MW-2 indicates that a historical release of this substance has occurred. In addition, based on field measurements for groundwater samples, the previous release of caustic soda impacted groundwater at Wells MW-1, MW-2, MW-3, MW-10, and MW-13.
- 38) Based on the elevated concentrations of the primary degradation products of trichloroethene (TCE), mainly cis-1, 2-dichloroethene (cis-1,2-DCE), 1,1-dichloroethane, and vinyl chloride, it appears that a TCE release occurred in the vicinity of Well MW-2. The TCE may be naturally degrading through reductive de-chlorination processes that may be active in the facility subsurface.
- 39) The substances identified in the soil and ground water beneath the Site that have migrated under the USCG Old Base property and into the Mississippi River are hazardous substances and are recognized as potentially harmful to human health and the environment. According to the Greater St. Louis Inland Sensitivity Atlas a water intake exists at mile marker 162, approximately twelve miles down stream. The Mississippi River is home to the Palad Sturgeon, an endangered species, as well as habitat for various sport fish that are consumed by local wildlife and humans.
- 40) The conditions present at the facility may constitute an imminent and substantial endangerment to public health, welfare, or the environment.
- 41) The Site is not currently on the National Priorities List and has not been proposed for listing.

VI. CONCLUSIONS OF LAW AND DETERMINATIONS

Based on the Findings of Fact set forth above, and the Administrative Record supporting this removal action, EPA has determined that:

- 42) The HCI Chemtech-St. Louis Site is a "facility" as defined by section 101(9) of CERCLA, 42 U.S.C. § 9601(9).
- 43) The contaminants found at the Site, as identified in the Findings of Fact above, include "hazardous substance(s)" as defined by section 101(14) of CERCLA, 42 U.S.C. § 9601(14).
- 44) Respondent is a "person" as defined by section 101(21) of CERCLA, 42 U.S.C. § 9601(21).
- 45) Respondent may be liable under section 107(a) of CERCLA, 42 U.S.C. § 9607(a), because Respondent is the "owner" and/or "operator" of the facility, as defined by section 101(20) of CERCLA, 42 U.S.C. § 9601(20), and within the meaning of section 107(a)(1) of CERCLA, 42 U.S.C. § 9607(a)(1).

- 46) The conditions described in the Findings of Fact above constitute an actual or threatened "release" of a hazardous substance from the facility as defined by sections 101(22) of CERCLA, 42 U.S.C. § 9601(22).
- 47) The actual or threatened release of hazardous substances from the Site may present an imminent and substantial endangerment to the public health, welfare, or the environment within the meaning of section 106(a) of CERCLA, 42 U.S.C. § 9606(a).
- 48) The actions required by this Order are necessary to protect the public health, welfare, or the environment, and are not inconsistent with the NCP or CERCLA.

VII. ORDER

- 49) Based upon the foregoing Findings of Fact, Conclusions of Law, Determinations, and the Administrative Record for this Site, it is hereby ordered and agreed that Respondent shall comply with the following provisions, including but not limited to all attachments to this Order, and all documents incorporated by reference into this Order, and perform the following actions:

A. Designation of Contractor, Project Coordinator, and On-Scene Coordinator

- 50) Respondent has retained ARCADIS Geraghty & Miller, Inc., 5100 East Skelly Drive, Suite 1000, Tulsa, Oklahoma 74135, to perform the EE/CA. Respondent shall notify EPA of the name(s) and qualification(s) of any other contractor(s) or subcontractor(s) retained to perform the Work under this Order at least ten (10) business days prior to commencement of such work. EPA retains the right to disapprove of any, or all, of the contractors and/or subcontractors retained by the Respondent; provided, however, that approval shall not be unreasonably withheld. If EPA disapproves of a selected contractor, Respondent shall retain a different contractor or notify EPA that it will perform the Work itself within fifteen (15) business days following EPA's disapproval and shall notify EPA of that contractor's name and qualifications within twenty-one (21) business days of EPA's disapproval.
- 51) Respondent has designated Brian Guillette, ARCADIS Geraghty & Miller, as Project Coordinator. All verbal notices and written communications provided to Respondent under this Order shall be directed to Respondent's Project Coordinator as follows:

Brian Guillette
ARCADIS Geraghty & Miller
5100 East Skelly Drive, Suite 1000
Tulsa, Oklahoma 74135

52) To the greatest extent possible, the Project Coordinator or his designee shall be present on Site or readily available during Site work. EPA retains the right to disapprove of any Project Coordinator named by the Respondent. Receipt by Respondent's Project Coordinator of any notice or communication from EPA relating to this Order shall constitute receipt by the Respondent.

53) EPA, Region VII has designated Bryant Burnett of the Enforcement/Fund-Lead Removal Branch, as its On-Scene Coordinator (OSC). Respondent shall direct all submissions required by this Order to the OSC at the following:

Bryant Burnett
On-Scene Coordinator
U. S. Environmental Protection Agency
Enforcement/Fund-Lead Removal Branch
901 North 5th Street
Kansas City, Kansas 66101

54) EPA and Respondent shall have the right, subject to the immediately preceding paragraphs, to change its designated OSC or Project Coordinator or Contractor. Respondent shall notify EPA, ten (10) business days before such a change is made. The initial notification may be orally made but it shall be promptly followed by a written notice.

B. Work to Be Performed

55) Respondents shall conduct, prepare, and submit to EPA for EPA review and approval an EE/CA for the HCI Chemtech- St. Louis Site in accordance with EPA's "Guidance on Conducting Non-Time Critical Removal Actions under CERCLA," OSWER Directive No. 9360.0-32, August 1993; and in accordance with the attached SOW, Attachment I. The goals of an EE/CA are to identify the objectives of the removal action and to analyze the effectiveness, implementability, and cost of various alternatives that may satisfy these objectives. Respondent shall submit the EE/CA as described in the attached SOW, Attachment I, to EPA for EPA's approval according to the schedule stated in the SOW, Attachment I.

C. Health and Safety Plan

56) Within sixty (60) days after the Effective Date of this Order, the Respondent shall submit for EPA review and comment a plan that ensures the protection of the public health and safety during performance of Work under this Order. This plan shall be prepared in accordance with EPA's current Standard Operating Safety Guide, dated November 1984, and updated July 1988. If the guide is updated while this Order is in effect the Health and Safety Plan shall be updated to reflect changes in the guidance. In addition, the plan shall comply with all current applicable Occupational Safety and Health Administration

(OSHA) regulations found at 29 CFR Part 1910. Respondent shall incorporate all changes to the plan recommended by EPA, and implement the plan during the pendency of the EE/CA.

D. Quality Assurance and Sampling

- 57) All sampling and analyses performed pursuant to this Order shall conform to EPA direction, approval, and guidance regarding sampling, quality assurance/quality control (QA/QC), data validation, and chain of custody procedures. Respondent shall ensure that the laboratory used to perform the analyses participates in a QA/QC program that complies with the appropriate EPA guidance. Respondent shall follow the following documents, as appropriate, as guidance for QA/QC and sampling: "Quality Assurance/Quality Control Guidance for Removal Activities: Sampling QA/QC Plan and Data Validation Procedures," OSWER Directive Number 9360.4-01; "Environmental Response Team Standard Operating Procedures," OSWER Directive Numbers 9360.4-02 through 9360.4-08; and the representative Sampling Guidance for soil, air, ecology, waste, and water as this information becomes finalized and available.
- 58) Upon request by EPA, Respondent shall have such a laboratory analyze samples submitted by EPA for quality-assurance monitoring. Respondent shall provide to EPA the quality assurance/quality control procedures followed by all sampling teams and laboratories performing data collection and/or analysis.
- 59) Upon request by EPA, Respondent shall allow EPA or its authorized representatives to take split and/or duplicate samples of any samples collected by Respondent while performing work under this Order. Respondent shall notify EPA not less than ten (10) days in advance of any sample collection activity. EPA shall have the right to take any additional samples that it deems necessary.

E. Progress Reports and Meetings

- 60) Respondent shall submit a written progress report to EPA concerning actions undertaken pursuant to this Order every 30th day after the date of receipt of EPA's approval of the work plan until termination of this Order, unless otherwise directed by the OSC in writing. These reports shall describe all significant developments during the preceding period, including the actions performed and any problems encountered, analytical data received during the reporting period, and the developments anticipated during the next two (2) reporting periods, including a schedule of actions to be performed, anticipated problems, and planned resolutions of past or anticipated problems.
- 61) Respondent shall, at least thirty (30) days prior to the conveyance of any interest in real property at the Site, give written notice that the property is subject to this Order to the transferee and written notice to EPA and the State of Missouri of the proposed conveyance, including the name and address of the transferee. Respondent agrees to

require that its successor comply with the immediately preceding sentence and the Access to Property and Information requirements of this Order.

- 62) Respondent shall make presentations at, and participate in, meetings at the request of EPA during the initiation, conduct, and completion of the Work. In addition to the discussion of the technical aspects of the Work, topics will include anticipated problems or new issues. Meetings will be scheduled at EPA's discretion.

F. Access to Property and Information

- 63) Respondent shall provide, and/or obtain access to the Site and off-site areas to which access is necessary to implement this Order, and provide access to all records and documentation related to the conditions at the Site and the actions conducted pursuant to this Order. Such access shall be provided to EPA employees, contractors, agents, consultants, designees, representatives, and State of Missouri representatives. These individuals shall be permitted to move freely at the Site and appropriate off-site areas in order to conduct actions which EPA determines to be necessary. Respondent shall submit to EPA, upon receipt, the results of all sampling or tests and all other data generated by Respondent or their contractor(s), or on the Respondent's behalf during implementation of this Order.
- 64) Where action under this Order is to be performed in areas owned by or in possession of someone other than Respondent, Respondent shall use its best efforts to obtain all necessary access agreements within forty-five (45) days after the approval of the work plan by EPA, or as otherwise specified in writing by the OSC.
- 65) For purposes of this Order, "best efforts" includes the following: agreeing (upon request) to provide splits or duplicates of all samples collected on the property; and agreeing (upon request) to provide results of all analyses of samples collected on the property; and providing reasonable compensation to any property owner from whom access is sought. Any such access agreements shall be incorporated by reference into this Order.
- 66) Respondent shall immediately notify EPA if after using its best efforts it is unable to obtain such agreements. Respondent shall describe in writing its efforts to obtain access. EPA may then assist Respondent in gaining access, to the extent necessary to effectuate the response actions described herein, using such means as EPA deems appropriate. Respondent shall reimburse EPA for all costs and attorney's fees incurred by the United States in obtaining such access.

G. Agency Review and Approval

- 67) The following procedure will apply to the review and approval of all documents submitted to EPA for review and approval pursuant to the requirements of this Order. EPA will review each such document and, after consultation with MDNR, notify Respondent, in

writing, as to its approval or disapproval thereof. In the event EPA does not approve any such document, it will provide a written statement as to the basis of the disapproval. Within twenty (20) business days of receipt of the EPA comments, or such other time period as agreed to by the Parties, Respondent shall revise any document not approved by EPA addressing EPA's written comments and resubmit it to EPA. Revised submittals are subject to EPA approval, approval with conditions, disapproval or disapproval with modifications by EPA, subject to dispute resolution. EPA will make the final determination as to whether the document submitted by Respondent is in compliance with the requirements of this Order. At that time when EPA determines that the report is in compliance with the requirements of this Order, EPA will transmit to Respondent a written statement to that effect. Disapproval upon resubmission due to a material defect shall be considered a violation of the Order.

- 68) EPA reserves the right to comment on, modify and direct changes for all deliverables. At EPA's discretion Respondent must fully correct all deficiencies and incorporate and integrate all information and comments supplied by the EPA either in subsequent or resubmitted deliverables.
- 69) Neither failure of EPA to expressly approve or disapprove of Respondent's submissions within a specified time period(s), nor the absence of comments, shall be construed as approval by EPA. Whether or not EPA gives express approval for Respondent's deliverables, Respondent is responsible for preparing deliverables acceptable to EPA.
- 70) In the event that Respondent amends or revises a report, plan or other submittal upon receipt of EPA comments, if EPA subsequently disapproves of the revised submittal, or if subsequent submittals do not fully reflect EPA's directions for changes, EPA retains the right to seek stipulated or statutory penalties; perform its own studies, complete the Work (or any portion of the Work) under CERCLA and the NCP, and seek reimbursement from the Respondent for its costs; and/or seek any other appropriate relief.
- 71) EPA-approved documents shall be deemed incorporated into and made part of this Order. Prior to written approval, no workplan, report, specification, or schedule shall be construed as approved and final. Oral advice, suggestions, or comments given by EPA representatives will not constitute an official approval, nor shall any oral approval or oral assurance of approval be considered binding.

H. Record Retention, Documentation, Availability of Information

- 72) Respondent shall preserve all documents and information relating to work performed under this Order, or relating to the hazardous substances found on or released from the Site, for ten (10) years following completion of the removal actions required by this Order. At the end of this ten (10) year period and thirty (30) days before any document or information is destroyed, Respondent shall notify EPA that such documents and information are available to EPA for inspection, and upon request, shall provide the

originals or copies of such documents and information to EPA. In addition, Respondent shall provide documents and information retained under this section at any time before expiration of the ten (10) year period at the written request of EPA.

- 73) Respondent may assert a business confidentiality claim pursuant to 40 CFR § 2.203(b) with respect to part or all of any information submitted to EPA pursuant to this Order, provided such claim is allowed by section 104(e)(7) of CERCLA, 42 U.S.C. § 9604(e)(7). Analytical and other data specified in section 104(e)(7)(F) of CERCLA shall not be claimed as confidential by the Respondent. EPA shall disclose information covered by a business confidentiality claim only to the extent permitted by, and by means of the procedures set forth at, 40 CFR Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, EPA may make it available to the public without further notice to Respondent.
- 74) Respondent shall maintain a running log of privileged documents on a document-by-document basis, containing the date, author(s), addressee(s), subject, the privilege or grounds claimed (e.g., attorney work product, attorney-client), and the factual basis for assertion of the privilege. Respondent shall keep the "privilege log" on file and available for inspection. EPA may at any time challenge claims of privilege.

I. Off-Site Shipments

- 75) All hazardous substances, pollutants or contaminants removed off-site pursuant to this Order for treatment, storage, or disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by EPA, 42 U.S.C. § 9621(d)(3), and the following rule: "Amendment to the National Oil and Hazardous Substances Pollution Contingency Plan; Procedures for Planning and Implementing Off-Site Response Actions: Final Rule" 58 Fed. Reg. 49,200 (September 22, 1993) codified at 40 C.F.R. § 300.440. Regional Offices will provide information on the acceptability of a facility under section 121(d)(3) of CERCLA and the above rule.
- 76) Unless impracticable, prior notification of out-of-state waste shipments should be given consistent with OSWER Directive 9330.2-07.

J. Compliance With Other Laws

- 77) Respondent shall perform all actions required pursuant to this Order in accordance with all applicable local, state, and federal laws and regulations except as provided in CERCLA section 121(e) and 40 CFR section 300.415(i). In accordance with 40 C.F.R. section 300.415(i), all on-site actions required pursuant to this Order shall, to the extent practicable, as determined by EPA, considering the exigencies of the situation, attain applicable or relevant and appropriate requirements (ARARs) under federal environmental or state environmental or facility siting laws. (See "The Superfund Removal Procedures: Guidance on the Consideration of ARARs During Removal Actions," OSWER Directive

No. 9360.3-02, August 1991). Respondent shall identify ARARs in the work plan subject to EPA approval.

K. Emergency Response and Notification of Releases

- 78) If any incident, or change in Site conditions, during the actions conducted pursuant to this Order causes or threatens to cause an additional release of hazardous substances from the Site or an endangerment to the public health, welfare, or the environment, the Respondent shall immediately take all appropriate action. The Respondent shall take these actions in accordance with all applicable provisions of this Order, including, but not limited to the Health and Safety Plan, in order to prevent, abate or minimize such release or endangerment caused or threatened by the release. Respondent shall also immediately notify the OSC or, in the event of his/her unavailability, shall notify:

Regional Duty Officer
Emergency Response & Removal Branch
U. S. Environmental Protection Agency, Region VII
901 North 5th Street
Kansas City, KS 66101
913-281-0991 (24-hour number)

and

Duty Officer
Environmental Emergency Response Section
Environmental Services Program
Missouri Department of Natural Resources
2701 W. Main St.
P. O. Box 176
Jefferson City, MO 65102-0176
314-634-2436 (24-hour number)

of the incident or Site conditions. If Respondent fails to respond, EPA may respond to the release or endangerment and reserve the right to pursue cost recovery.

- 79) In addition, in the event of any release of a hazardous substance from the Site, Respondent shall immediately notify EPA's OSC at (913) 551-7742 and the National Response Center at telephone number (800) 424-8802. Respondent shall submit a written report to EPA within seven (7) days after each release, setting forth the events that occurred and the measures taken or to be taken to mitigate any release or endangerment caused or threatened by the release and to prevent the reoccurrence of such a release. This reporting requirement is in addition to, not in lieu of, reporting under CERCLA section 103(c) and section 304 of the Emergency Planning and Community Right-To-Know Act of 1986, 42 U.S.C. Sections 11001 et seq.

VIII. AUTHORITY OF THE EPA ON-SCENE COORDINATOR

- 80) The OSC shall be responsible for overseeing the Respondent's implementation of this Order. The OSC shall have the authority vested in an OSC by the NCP, including the authority to halt, conduct, or direct any work required by this Order, or to direct any other removal action undertaken at the Site. Absence of the OSC from the Site shall not be cause for stoppage of work unless specifically directed by the OSC.

IX. REIMBURSEMENT OF COSTS

- 81) The amounts to be paid by Respondent for Past Response Costs and Future Response Costs pursuant to this Order shall be deposited in the "HCI Chemtech-St. Louis Site Special Account" within the EPA Hazardous Substance Superfund to be retained and used to conduct or finance response actions at or in connection with the Site, or to be transferred by EPA to the EPA Hazardous Substance Superfund.
- 82) Within thirty (30) days after the Effective Date of the Order, Respondent shall pay \$4,331.38, in the manner detailed below, for reimbursement of Past Response Costs paid by the EPA. Past Response Costs are all costs, including, but not limited to, direct and indirect costs and interest, that the EPA, its employees, agents, contractors, consultants, and other authorized representatives incurred and paid with regard to the Site prior to the Effective Date of this Order. In addition, Respondent shall reimburse EPA for all Future Response Costs, not inconsistent with the NCP, incurred by the United States.
- 83) Future Response Costs are all costs, including, but not limited to, direct and indirect costs, that the EPA incurs in reviewing or developing plans, reports and other items pursuant to this Order, verifying the Work, or otherwise implementing, overseeing, or enforcing this Order.
- 84) On a periodic basis, EPA shall submit to Respondent a bill for Future Response Costs that includes a SCORE\$ Report. EPA will send the original bill to the Respondent's Project Coordinator and a copy of the bill to:

Peter Ramaley
Director, Environment Health & Safety
Brenntag, Inc.
P.O. Box 13786
Reading, Pennsylvania 19612

- 85) Respondent shall, within thirty (30) days of receipt of the bill, remit a check for the amount of the bill made payable to the "HCI Chemtech-St. Louis Site Special Account, EPA Hazardous Substance Superfund," to the following address:

Mellon Bank, EPA Region VII Superfund
FNMG Section
P. O. Box 360748M
Pittsburgh, Pennsylvania 15251

- 86) Respondent shall simultaneously transmit a copy of the check to the EPA OSC at the U. S. Environmental Protection Agency, Region VII, 901 North 5th Street, Kansas City, Kansas 66101. Payments shall be designated as "Response Costs -HCI Chemtech-St. Louis Site" and shall reference the payor's name and address, the EPA site identification number (A767), and the docket number of this Order.
- 87) In the event that the payment for Past Response Costs is not made within thirty (30) days of the Effective Date of this Order or the payments for Future Response Costs are not made within thirty (30) days of the Respondent's receipt of the bill, Respondent shall pay interest on the unpaid balance. Interest is established at the rate specified in section 107(a) of CERCLA. The interest to be paid on Past Response Costs shall begin to accrue on the Effective Date of the Order. The interest on Future Response costs shall begin to accrue on the date of the Respondent's receipt of the bill. Interest shall accrue at the rate specified through the date of the payment. Payments of interest made under this paragraph shall be in addition to such other remedies or sanctions available to the United States by virtue of Respondent's failure to make timely payments under this Section.
- 88) Pursuant to Section X (Dispute Resolution), Respondent may dispute all or part of a bill for Future Response Costs submitted under this Order. Respondent agrees to limit any disputes concerning costs to accounting errors, the inclusion of costs outside the scope of this Consent Order, or costs not consistent with the NCP. Respondent shall identify any contested costs and the basis of its objection.
- 89) If any dispute over costs is resolved before payment is due, the amount due will be adjusted as necessary. If the dispute is not resolved before payment is due, Respondent shall pay the full amount of the uncontested costs into the Hazardous Substance Fund as specified above on or before the due date. Within the same time period, Respondent shall pay the full amount of the contested costs into an interest-bearing escrow account. Respondent shall simultaneously transmit a copy of both checks to the OSC. Respondent shall ensure that the prevailing party or parties in the dispute shall receive the amount upon which they prevailed from the escrow funds plus interest within ten (10) days after the dispute is resolved.

X. DISPUTE RESOLUTION

- 90) The parties to this Order shall attempt to resolve, expeditiously and informally, any disagreements concerning this Order.

- 91) If the Respondent objects to any EPA action taken pursuant to this Order, including billings for Future Response Costs, the Respondent shall notify EPA in writing of its objection(s) within twenty (20) days of such action, unless the objection(s) (has/have) been informally resolved.
- 92) Such notice shall set forth the specific points of the dispute, the position Respondent maintains should be adopted as consistent with the requirements of this Order, the factual and legal basis for the Respondent's position, and all matters the Respondent considers necessary for the EPA's determination. EPA and Respondent shall then have fourteen (14) working days from EPA's receipt of Respondent's objections to attempt to resolve the dispute. If agreement is reached, the resolution shall be reduced to writing, signed by each party, and incorporated into this Order. If the parties are unable to reach agreement within this fourteen (14) working day period, the matter shall be referred to the Regional Judicial Officer. EPA shall provide notice in writing of its position, including the position EPA maintains should be adopted as consistent with the requirements of this Order, the factual and legal basis for Respondent's position, and all matters EPA considers necessary for the Regional Judicial Officer's determination. Respondent may reply to the EPA's notice of its position. EPA may, but shall not be required to, give notice, as described above, if it has already provided written notice, if it has already provided written reasons, or already provided a written explanation pursuant to a notice of disapproval of a plan, report or other item.
- 93) The Regional Judicial Officer shall then decide the matter, consistent with the NCP and the terms of this Order, on the basis of those written materials described in this Section, and any meeting held with Respondent and EPA. The Regional Judicial Officer will then provide a written statement of his/her decision to both parties to the dispute, which shall be incorporated into this Order, provided that incorporation of the Judicial Officer's decision into the Order shall not deprive Respondent of the right to contest the validity of the Regional Judicial Officer's decision in any judicial action taken by the EPA to enforce this Order, or the terms thereof, as provided by Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).
- 94) All materials submitted pursuant to this Section, shall be kept as part of any Administrative Record made pursuant to 40 C.F.R. §§ 300.415 and 300.820 for any response action resulting for this Site.
- 95) Notwithstanding any other provisions of this Order, no action or decision by EPA, including without limitation, decisions of the Regional Judicial Officer pursuant to this Order, shall constitute final EPA action giving rise to any rights to judicial review prior to EPA's initiation of judicial action to compel Respondent's compliance with the requirements of this Order.

XI. FORCE MAJEURE

- 96) Respondent agrees to perform all requirements under this Order within the time limits established under this Order, unless the performance is delayed by a force majeure. For purposes of this Order, a force majeure is defined as any event arising from causes beyond the control of Respondent or of any entity controlled by Respondent, including but not limited to its contractors and subcontractors, that delays or prevents performance of any obligation under this Order despite Respondent's best efforts to fulfill the obligation. Force majeure does not include financial inability to complete the Work or increased cost of performance.
- 97) Respondent shall notify EPA orally within forty-eight (48) hours after the event, and in writing within ten (10) days after Respondent becomes or should have become aware of events which constitute a force majeure. Such notice shall: identify the event causing the delay or anticipated delay; estimate the anticipated length of delay, including necessary demobilization and re-mobilization; state the measures taken or to be taken to minimize the delay; and estimate the timetable for implementation of the measures. Respondent shall take all reasonable measures to avoid and minimize the delay. Failure to comply with the notice provision of this section shall waive any claim of force majeure by the Respondent.
- 98) If EPA determines a delay in performance of a requirement under this Order is or was attributable to a force majeure, the time period for performance of that requirement shall be extended as deemed necessary by EPA. Such an extension shall not alter Respondent's obligation to perform or complete other tasks required by the Order which are not directly affected by the force majeure.

XII. STIPULATED AND STATUTORY PENALTIES

- 99) For each day, or portion thereof, that Respondent fails to provide major deliverables, i.e. the EE/CA, Respondent shall be liable as follows:
- (1) \$500 per day for the first through seventh day of noncompliance; and
 - (2) \$750 per day for the eighth through the fourteenth day of noncompliance; and
 - (3) \$1,500 per day for the fifteenth through the thirtieth day of noncompliance; and
 - (4) \$3,000 per day for the thirty-first day and each succeeding day of noncompliance thereafter.
- 100) For each day, or portion thereof, that Respondent fails to provide lesser documents, for example memoranda, reports and workplans, in accordance with the schedules established pursuant to this Order, Respondent shall be liable as follows:
- (1) \$200 per day for the first through seventh day of noncompliance; and
 - (2) \$400 per day for the eighth through the fourteenth day of noncompliance; and

- (3) \$800 per day for the fifteenth through the thirtieth day of noncompliance; and
- (4) \$1,600 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

101) For each day, or portion thereof, that Respondent fails to perform or provide actions or deliverables, not described in the above two preceding paragraphs, in accordance with the schedules established pursuant to this Order, Respondent shall be liable as follows:

- (1) \$100 per day for the first through seventh day of noncompliance; and
- (2) \$200 per day for the eight through the fourteenth day of noncompliance; and
- (3) \$400 per day for the fifteenth through the thirtieth day of noncompliance; and
- (4) \$800 per day for the thirty-first day and each succeeding day of noncompliance thereafter.

102) Upon receipt of written demand by EPA, Respondent shall make payment to EPA within sixty (60) days. Interest shall accrue on late payments as of the date the payment is due.

103) Even if violations are simultaneous, separate penalties shall accrue for separate violations of this Order. Penalties accrue and are assessed per violation per day. Penalties shall accrue regardless of whether EPA has notified Respondent of a violation or act of noncompliance. The payment of penalties shall not alter in any way Respondent's obligation(s) to complete the performance of the Work required under this Order.

104) Violation of this Order may subject Respondent to civil penalties of up to twenty-seven thousand five hundred dollars (\$27,500) per violation per day, as provided in section 106(b)(1) of CERCLA, 42 U.S.C. section 9606(b)(1). Respondent may also be subject to punitive damages in an amount up to three times the amount of any cost incurred by the United States as a result of such violation, as provided in section 107(c)(3) of CERCLA, 42 U.S.C. Section 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to these authorities for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Order. In the case of a willful violation of this Order, EPA shall elect between seeking stipulated or statutory penalties. Should Respondent violate this Order or any portion hereof, EPA may carry out the required actions unilaterally, pursuant to section 104 of CERCLA, 42 U.S.C. Section 9604, and/or may seek judicial enforcement of this Order pursuant to section 106 of CERCLA, 42 U.S.C. Section 9606.

105) Respondent may dispute whether penalties are due by invoking the dispute resolution procedures under the terms of this Order. Stipulated penalties continue to accrue during dispute resolution but need not be paid until the dispute resolution process, as described in this Order, is completed. In that event, any penalty that is determined by the Regional Judicial Officer to be owed by the Respondent shall be due within sixty (60) days of receipt by Respondent, as indicated by the date on the certified mail receipt, of the final dispute resolution decision. The Regional Judicial Officer shall have the discretion to

reduce any amount of stipulated penalties, initially demanded by EPA, as indicated in his/her decision.

- 106) EPA will consider any good faith efforts by Respondent to comply with such deadlines in making any such demand for stipulated penalties.

XIII. RESERVATION OF RIGHTS

- 107) Except as specifically provided in this Order, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Order, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring the Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law. EPA reserves the right to bring an action against Respondent under section 107 of CERCLA, 42 U.S.C. section 9607, for recovery of any response costs incurred by the United States related to this Order or the Site and not reimbursed by Respondent.
- 108) EPA hereby expressly reserves all rights and defenses that it may have, including, but not limited to, its rights to disapprove of work performed by Respondent and to require that Respondent perform tasks in addition to those stated in this Order. However, nothing in this paragraph shall be construed as expanding the scope of this Order as to Respondent.
- 109) Compliance by Respondent with the terms of this Order shall not relieve Respondent of its obligations to comply with CERCLA, RCRA or any other applicable local, state, or federal laws and regulations.
- 110) In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portions of the Work as EPA deems necessary. Respondent may invoke the procedures set forth in Section X (Dispute Resolution) to dispute EPA's determination that take over of the Work is warranted under this paragraph.
- 111) This Order does not waive any claims or rights for natural resource damage that may be asserted against Respondent by the Natural Resource Trustee. Such natural resource damage claims are expressly reserved and can only be waived by the Natural Resource Trustee.

- 112) The parties to this Order hereby expressly reserve all rights, claims, demands, and causes of action they may have against any and all other persons and entities who are not parties to this agreement.
- 113) Respondent specifically denies the findings of fact, and conclusions of law set forth herein. Neither this Order, nor any part thereof, nor any entry into or performance under this Order, shall constitute or be construed as an admission or acknowledgment of liability in any subsequent judicial action.
- 114) The terms of this Order shall not be admissible in any judicial or administrative proceeding, except by the parties to the Order to enforce its terms, or by the Respondent to defend against any proceeding or claim asserted by a third party.

XIV. OTHER CLAIMS

- 115) By issuance of this Order, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by the Respondent or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Order.
- 116) Except as expressly provided in Section XV (Covenant Not To Sue), nothing in this Order constitutes a satisfaction of or release from any claim or cause of action against the Respondent or any person not a party to this Order, for any liability such person may have under CERCLA, other statutes, or the common law, including but not limited to any claims of the United States for costs, damages and interest under sections 106(a) and 107(a) of CERCLA, 42 U.S.C. Sections 9606(a) and 9607(a).
- 117) This Order does not constitute a preauthorization of funds under section 111(a)(2) of CERCLA, 42 U.S.C. § 9611(a)(2). The Respondent waives any claim to payment under sections 106(b), 111, and 112 of CERCLA, 42 U.S.C. §§ 9606(b), 9611, and 9612, against the United States or the Hazardous Substance Superfund arising out of any action performed under this Order.
- 118) No action or decision by EPA pursuant to this Order shall give rise to any right to judicial review except as set forth in section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XV. COVENANT NOT TO SUE

- 119) In consideration of the Work that will be performed and the payments that will be made by the Respondent under the terms of this Order, and except as specifically reserved in Section XIII (Reservation of Rights) of this Order, the EPA covenants not to sue and agrees not to assert any claims or causes of action or take administrative action against Respondent, and any successor that complies with this Order pursuant to Paragraph 5, for

Matters Addressed pursuant to Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606-9607 and Section 7003 of RCRA, 42 U.S.C. §6973 . The EPA's covenants shall take effect with respect to Respondent upon EPA's issuance of a notice of completion pursuant to Section XXI of this Order. EPA's covenants in this Section extend only to Respondent and do not extend to any other persons.

XVI. CONTRIBUTION PROTECTION

- 120) With regard to claims for contribution against Respondent for Matters Addressed in this Order, the Parties hereto agree that the Respondent is entitled to protection from contribution actions or claims to the extent provided by section 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. Sections 9613(f)(2) and 9622(h)(4).
- 121) Nothing in this Order precludes the United States or the Respondent from asserting any claims, causes of action or demands against any persons not parties to this Order for indemnification, contribution, or cost recovery.

XVII. INDEMNIFICATION

- 122) Respondent agrees to indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action: (A) arising from, or on account of, negligent or wrongful acts or omissions of Respondent, Respondent's officers, directors, employees, agents, contractors, subcontractors, receivers, trustees, successors or assigns, in carrying out actions pursuant to this Order; and (B) for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between (any one or more of) Respondent, and any persons for performance of work on or relating to the Site, including claims on account of construction delays. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including litigation costs arising from or on account of claims made against the United States based on any of the acts or omissions referred to in this paragraph.
- 123) Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between (any one or more of) Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XVIII. INSURANCE

- 124) At least seven (7) days prior to commencing any on-site work under this Order, the Respondent shall secure, and shall maintain for the duration of this Order, comprehensive general liability insurance and automobile insurance with limits of two million dollars (\$2,000,000), combined single limit. Within the same time period, the Respondent shall

provide EPA with certificates of such insurance and/or a copy of each insurance policy. If the Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then the Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XIX. FINANCIAL ASSURANCE

- 125) Within thirty (30) days after the Effective Date of this Order and thereafter until notice of completion of work under Section XXI, the Respondent shall demonstrate to EPA that it meets one of the financial assurance mechanisms specified in 40 C.F.R. Section 264.143 for the sufficient estimated costs of work to be performed by the Respondent under this Order.

XX. MODIFICATIONS

- 126) Modifications to any plan or schedule or SOW may be made in writing by the OSC or at the OSC's oral direction. If the OSC makes an oral modification, it will be memorialized in writing within ten (10) days; provided, however, that the Effective Date of the modification shall be the date of the OSC's oral direction. Any other requirements of the Order may be modified in writing by mutual agreement of the parties.
- 127) If Respondent seeks permission to deviate from any approved work plan or schedule or SOW, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed work plan modification and its basis.
- 128) No informal advice, guidance, suggestion, or comment by EPA regarding reports, plans, specifications, schedules, or any other writing submitted by the Respondent shall relieve the Respondent of its obligation(s) to obtain such formal approval as may be required by this Order, and to comply with all requirements of this Order unless it is formally modified.
- 129) EPA may determine that in addition to tasks defined in the initially approved work plans, other additional work may be necessary to accomplish the objectives of this Order as set forth in the SOW for Work. EPA may require that the Respondent perform these response actions in addition to those required by the initially approved work plan, including any approved modifications, if it determines that such actions are necessary for a completion of the Work. Respondent shall confirm its willingness to perform the additional work in writing to EPA within fifteen (15) business days of receipt of the EPA request or Respondent shall invoke dispute resolution. Subject to the resolution of any dispute, Respondent shall implement the additional tasks which EPA determines are necessary. The additional work shall be completed according to the standards, specifications, and

schedule set forth or approved by EPA in a written modification to the work plan or written work plan supplement. EPA reserves the right to conduct the Work itself at any point, to seek reimbursement from Respondent, and/or to seek any other appropriate relief.

XXI. NOTICE OF COMPLETION

- 130) When EPA determines, after EPA's review of the EE/CA Report, that all actions have been fully performed in accordance with this Order, with the exception of any continuing obligations required by this Order, including Record Retention, Reimbursement of Costs, and Indemnification, EPA will provide notice to the Respondent. If EPA determines that any actions have not been completed in accordance with this Order, EPA will notify the Respondent, provide a list of the deficiencies, and require that Respondent modify the work plan if appropriate in order to correct such deficiencies. The Respondent shall implement the modified and approved work plan and shall submit a modified EE/CA in accordance with the EPA notice. Failure by Respondent to implement the approved modified work plan shall be a violation of this Order.

XXII. ADMINISTRATIVE RECORD

- 131) Respondent shall submit to EPA for inclusion in the administrative record all final documents developed during the course of generating the EE/CA upon which selection of the response action may be based. Respondent shall provide copies of plans, task memoranda for further action, quality assurance memoranda and audits, raw data, field notes, laboratory analytical reports and other reports. Respondent shall additionally submit any previous studies conducted under state, local or other federal authorities relating to selection of the response action, and all communications between Respondent and state, local or other federal authorities concerning selection of the response action. At EPA's discretion, Respondent may establish a community information repository at or near the Site, to house one copy of the administrative record.

XXIII. SEVERABILITY

- 132) If a court issues an order that invalidates any provision of this Order or finds that Respondent has sufficient cause not to comply with one or more provisions of this Order, Respondent shall remain bound to comply with all provisions of this Order not invalidated or determined to be subject to a sufficient cause defense by the court's order.

XXIV. EFFECTIVE DATE

- 133) This Order may be executed in any number of counterparts, each of which when executed and delivered to EPA shall be deemed to be an original, but such counterparts shall together constitute one and the same document.

- 134) This Order shall be effective upon the date that EPA enters the Order as signified by the date that the Order is file-stamped on the first page of the Order.

The undersigned representative of Respondent certifies that it is fully authorized to enter into the terms and conditions of this Administrative Order on Consent for Engineering Evaluation/Cost Analysis and to bind the party it represents to this document.

Agreed this 10 day of FEB, 2004.

By: 

Printed: J.C. CAVINS

Title: VICE PRESIDENT

It is so ORDERED and Agreed by the U.S. Environmental Protection Agency in the matter of *HCI Chemtech-St. Louis Superfund Site* this 10 day of MARCH, 2004.

BY: 
Cecilia Tapia
Director

Superfund Division

Region VII

United States Environmental Protection Agency

For the United States Environmental Protection Agency:

By: 
J. Daniel Breedlove

Assistant Regional Counsel

Region VII

United States Environmental Protection Agency

Date: 2/23/2004

ATTACHMENT I
STATEMENT OF WORK
HCI Chemtech-St. Louis Site
ENGINEERING EVALUATION/COST ANALYSIS (EE/CA)

The investigations addressing groundwater contamination at the HCI Chemtech-St. Louis Site (Site) will be conducted in accordance with CERCLA, the National Contingency Plan (NCP), EPA guidelines, and the Administrative Order on Consent for Engineering Evaluation/ Cost Analysis (Order). In accordance with the NCP, EPA's preferred removal alternative to address soil and groundwater contamination at the Site will be submitted to the public for comment prior to the selection of the removal action by EPA.

The schedule for work to be performed under the Order is set forth hereinafter. All documents prepared pursuant to this Statement of Work will be prepared in accordance with EPA guidance documents including, but not limited to:

- Guidance on Conducting Non-Time Critical Removal Actions Under CERCLA, (OSWER Directive 9360.0-32, August 1993).
- EPA Requirements for Quality Assurance Project Plans (QA/R-5) (EPA/240/B-01/003, March 2001);
- EPA Guidance for Quality Assurance Project Plans (QA/G-5) (EPA/600/R-98/018, February 1998);

TASK I - ENGINEERING EVALUATION/COST ANALYSIS WORK PLAN

Respondent shall prepare and submit for EPA review and approval a Work Plan that describes the technical and coordination activities to be followed in completing the EE/CA. The Work Plan shall describe the following:

- Existing data as to physical and chemical characteristics of the contaminants and their distribution on and near the Site shall be summarized. The Work Plan shall identify any data shortfalls which will require further field characterization.
- The Work Plan shall include an identification and description of conceptual removal alternatives to address soil, sediment and surface water contamination at the Site. The Work Plan shall also identify data needs for evaluation of each removal alternative. Field data shall be collected for any information which has not been previously collected on the Site.

- The Work Plan shall include a preliminary list of potential Applicable or Relevant and Appropriate Requirements (ARARs) for the conceptual alternatives, to assist in the determination of site characterization needs and the refinement of removal action objectives. The Work Plan shall identify any data needs which are necessary in order to make ARARs determinations or evaluate the ability of an alternative to comply with ARARs.
- The Work Plan shall include a description of how Respondent intends to address the National Historic Preservation Act of 1966, including a preliminary investigation to determine if historic properties would be adversely affected by removal activities; a survey of historic properties if needed; mitigation measures if necessary; and review and consultation with the State Historical Preservation Officer as needed; in accordance with "Historic and Archaeological Resource Protection for USEPA Personnel" (June 27, 2000) and the implementing regulations at 36 C.F.R. Part 800.
- For data shortfalls identified in the previous bullets, specific sampling objectives, sample location and frequency, sampling equipment and procedures, and sample handling and analysis shall be described in the Work Plan. Sampling and analysis shall be conducted according to technically acceptable protocols.
- For data shortfalls identified in the previous bullets, Respondent shall prepare for EPA review and approval, as part of the Work Plan, a Quality Assurance Project Plan (QAPP) that describes the project objectives and organization, functional activities, and quality assurance and quality control protocols that will be used to achieve the project objectives. The QAPP shall be prepared in accordance with "EPA Requirements for Quality Assurance Project Plans (QA/R-5)" (EPA/240/B-01/003, March 2001) and "EPA Guidance for Quality Assurance Project Plans (QA/G-5)" (EPA/600/R-98/018, February 1998). Respondent shall demonstrate, in advance, to EPA's satisfaction, that each laboratory it uses is qualified to conduct the proposed work. If a laboratory not in the Contract Laboratory Program (CLP) is selected, methods consistent with CLP methods that would be used for the purposes proposed and quality assurance and quality control procedures approved by EPA shall be used. The Respondent shall only use laboratories which have a documented Quality Assurance Program which complies with ANSI/ASQC E-4 1994, "Specifications and Guidelines for Quality Systems for Environmental Data Collection and Environmental Technology

Programs," (American National Standard, January 5, 1995) and "EPA Requirements for Quality Management Plans (QA/R-2)" (EPA/240/B-01-002, March 2001) or equivalent documentation as determined by EPA.

- For data shortfalls identified in the previous bullets, Respondents shall prepare a Site Health and Safety Plan (H&SP) in accordance with OSHA regulations and protocols. The H&SP shall be submitted to EPA for review and comment concurrently with the Work Plan. The H&SP shall include a description of the potential physical and chemical risks present; a description of monitoring and personal protective equipment; medical monitoring; air monitoring; and facility control. The H&SP shall be reviewed and signed by all field personnel prior to the start of field work, indicating that they understand the plan and its requirements. Copies of the H&SP shall be available to all personnel throughout the project.
- Because of the iterative nature of the EE/CA, additional data requirements and analyses may be identified throughout the process. If any additional data requirements are identified, Respondent shall inform and propose the additional data requirements in a technical memorandum to EPA for review and approval. Respondent is responsible for fulfilling additional data and analysis needs identified by EPA consistent with the general scope and objectives of the EE/CA.
- The Work Plan shall include a schedule for submittal of deliverables and activities described herein and in the Order.

TASK II - FIELD ACTIVITIES

Respondent shall collect the field data as described in the Work Plan to determine the extent of soil and groundwater contamination, and to provide the information necessary to develop and evaluate removal alternatives.

TASK III - EE/CA REPORT

Respondent shall prepare and submit to EPA for review and approval an EE/CA Report which follows the outline and content described in "Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA", OSWER Directive No. 9360.0-32 (August 1993). The EE/CA will identify the goals of the removal action, and analyze the various alternatives to address soil, sediment

and surface water contamination, that may be used to satisfy these objectives, taking into account cost and implementability.

The EE/CA Report shall include, but is not limited to, the following:

1. Site Characterization: Summary of the all information previously gathered for the site and any additional data and information collected pursuant to this Order, including the site description, the site background, sources of contamination, and analytical data; site conditions that justify a removal action; the NCP factors set forth at 40 C.F.R. § 300.415(b); and the changes to site conditions which could be expected should no timely action be taken.

2. Identification of Removal Action Goals: Proposal of the removal action goals; scope of the projected removal activities; the location and extent of contamination to be addressed; principal threats addressed by the removal action; general scheduling; objectives for the action; and identification of any time constraints.

3. Identification and Screening of Removal Action Technologies: Brief description of removal action technologies that are appropriate, based upon the removal action goals, for the site contamination (if necessary, separate sets of technological alternatives may be identified for different waste streams).

4. Development and Analysis of Potential Removal Alternatives: Development of potential removal alternatives based upon the removal action objectives and the results of the technical screening; detailed comparative analysis of each alternative based on the effectiveness, implementability and cost of each alternative:

a. Effectiveness: Evaluate the degree to which each alternative mitigates threat to human health and the environment based upon the removal action objectives. The evaluation should consider: short and long-term risk reduction; level of treatment; demonstrated performance; timeliness; protectiveness of the environment; ability to meet ARARs; and alternatives to land disposal.

b. Implementability: Assess the implementability of each alternative in terms of the technical and

administrative feasibility and the availability of the necessary goods and services, as follows:

i. Technical feasibility: constructability; operation (including safety) and maintenance considerations; environmental conditions; timeliness with which the alternative can mitigate threats; and reliability;

ii. Administrative feasibility: permitting requirements; land acquisition; easements or right-of ways; coordination with relevant agencies and organizations; and potential impacts upon adjacent properties;

iii. Availability of goods and services: available technologies; personnel availability; availability of necessary post-removal site control; required permits and waivers needed; and likeliness of public acceptance.

c. Cost Analysis including estimate direct capital, indirect capital, annual operation and maintenance, present worth costs, and, if appropriate, conduct a sensitivity analysis of the present worth calculations to change in such parameters as the discount rate or the component costs.

TASK IV - MONTHLY PROGRESS REPORTS

The monthly progress reports shall include the following:

1. Actions which have been taken to comply with the Order during that month;

2. Results of sampling and tests and all other data received by the Respondent;

3. Work planned for the next reporting period with scheduling related to such work and the overall project schedule for the EE/CA process;

4. Anticipated problems, actual problems encountered, and any delays and solutions developed and implemented to address those problems or delays.

MAJOR DELIVERABLE SCHEDULE

DELIVERABLE	DUE DATE
Monthly Progress Reports	30 th day of each month
EE/CA Work Plan, QAPP, and H&SP	Within 60 days of the effective date of the Order
Treatability Study Work Plan	Within 30 days of notice of EPA's determination of a need for a Treatability Study
EE/CA Report	Within 60 days of completion of field activities